DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. FWS–R2–ES–2020–0119; FXES11130200000–212–FF02ENEH00]

Endangered and Threatened Wildlife and Plants; Draft Revised Recovery Plan for Houston Toad

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comment.

SUMMARY: We, the U.S. Fish and Wildlife Service, announce the availability of our draft revised recovery plan for the Houston toad, listed as endangered under the Endangered Species Act. The Houston toad is a semi-aquatic species endemic to pine and oak forests within Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robinson Counties, Texas. We provide this notice to seek comments from the public and Federal, Tribal, State, and local governments.

DATES: We must receive written comments on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

ADDRESSES: ***Reviewing documents:*** You may obtain a copy of the draft revised recovery plan in Docket No. FWS–R2–ES–2020–0119 at http://www.regulations.gov.

Submitting Comments: You may submit comments by one of the following methods:

- *Federal eRulemaking Portal:* http://www.regulations.gov. Follow the instructions for submitting comments on Docket No. FWS–R2–ES–2020–0119.

- *U.S. mail:* Public Comments Processing; Attn: Docket No. FWS–R2–ES–2020–0119; U.S. Fish and Wildlife Service Headquarters, MS: PRB/3W; 5275 Leesburg Pike, Falls Church, VA 22041–3803.

For additional information about submitting comments, see **Request for Public Comments** and **Public Availability of Comments** under **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: Adam Zerrenner, Field Supervisor, Austin Ecological Services Field Office, by phone at 512–490–0057, by email at adam_zerrenner@fws.gov, or via the Federal Relay Service at 800–877–8339 for TTY service.

SUPPLEMENTARY INFORMATION: We, the U.S. Fish and Wildlife Service (Service), announce the availability of our draft revised recovery plan for the Houston toad (*Anaxyrus houstonensis*; formerly *Bufo houstonensis*), listed as endangered under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*). Houston toads are endemic to aquatic and terrestrial habitats within pine and oak forests in Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robinson Counties, Texas. The draft revised recovery plan includes site-specific management actions and objective, measurable criteria that, when met, will enable us to remove the Houston toad from the list of endangered and threatened wildlife. We request review and comment on this plan from local, State, and Federal agencies; Tribes; and the public. We will also accept any new information on the status of the Houston toad throughout its range to assist in finalizing the recovery plan.

Background

Recovery of endangered or threatened animals and plants to the point where they are again secure, self-sustaining members of their ecosystems is a primary goal of our endangered species program and the ESA. Recovery means improvement of the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the ESA. The ESA requires the development of recovery plans for listed species, unless such a plan would not promote the conservation of a particular species.

The Service approved the original recovery plan for the Houston toad on September 17, 1984 (Service 1984). This draft recovery plan represents the first revision of the 1984 plan and considers updated information on Houston toad biology, population status, and threats. The revised recovery plan focuses primarily on a strategy for recovery of the Houston toad, objective, measurable recovery criteria, a list of prioritized recovery actions, and the estimated time and cost to recovery.

Summary of Species Information

Historically, the Houston toad was documented to occur in the following 12 Texas counties: Austin, Bastrop, Burleson, Colorado, Fort Bend, Harris, Lavaca, Lee, Leon, Liberty, Milam, and Robertson. In recent decades, the Houston toad has experienced rapid habitat loss and population declines due to urbanization and drought, and the species' distribution has become widely scattered, with small and disconnected occurrences documented throughout portions of Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robertson Counties. On October 13, 1970, we listed the Houston toad (then under the scientific name *Bufo houstonensis*) as an endangered species under the Federal Endangered Species Preservation Act of 1966 (35 FR 16047), and the Houston toad's endangered status was continued under the ESA of 1973. On January 31, 1978, the Service designated critical habitat for the Houston toad in portions

of Bastrop and Burleson Counties, Texas (43 FR 4022). We currently recognize this species as *Anaxyrus houstonensis* based on the most recent taxonomic evaluation.

The Houston toad is a small to medium-sized (5 to 8 centimeters [2 to 3 inches] in length) amphibian covered with raised patches of skin that resemble warts. The Houston toad is generally brown and speckled, with a pale underside that has small, dark spots. The toad's legs are banded, and two dark bands extend from each eye down to the mouth. A white stripe that can vary in pigmentation density extends down the middle of the back, but it can also be absent in some individuals. Houston toads are ectotherms (dependent on external sources of body heat), and their skin is highly vulnerable to desiccation. They become dormant during harsh weather conditions, such as winter cold (hibernation) and summer heat and drought (estivation). The Houston toad is an explosive breeder, aggregating in large numbers at breeding ponds over a period of a few nights throughout the breeding season in late January through June. Females produce large numbers (hundreds or thousands) of eggs, which hatch into tadpoles and then metamorphose into juvenile toadlets approximately 60 to 65 days after egg deposition.

Habitat for the Houston toad is generally defined as rolling uplands covered with pine and/or oak forests underlain by deep sandy soils. Houston toads spend most of their lives in terrestrial habitats feeding, sheltering, and dispersing. Important components of terrestrial Houston toad habitat include forested patches with abundant canopy cover and herbaceous vegetation on the forest floor. Because the toad is semi-aquatic, water is also an essential component of the Houston toad's habitat, and they are known to breed in small pools of water or ephemeral ponds. Houston toad populations exhibit a metapopulation structure (an assemblage of local subpopulations that are interconnected through gene flow, local extirpations, and recolonizations), and networks of ponds and individuals dispersing among these ponds are essential to maintaining Houston toad viability.

Habitat loss in the form of destruction, modification, and fragmentation (Factor A) has long been considered the most significant and immediate threat facing the Houston toad. Within the Houston toad's range, such habitat loss has been the result of the conversion to housing, agricultural pastures, or other unsuitable landscapes. Fire suppression, wildfire, and livestock grazing have altered and degraded Houston toad habitat so that its ecosystem function has been adversely affected. Habitat fragmentation has also diminished habitat sizes and connectivity, resulting in a reduction in or elimination of the genetic exchange of individuals, edge effects, barriers to movement, and isolation, with subsequent changes in demographic parameters such as decreased survivorship and loss of genetic diversity. To a lesser extent, predation (Factor C), small population size (Factor E), and the effects of climate change (Factor E) are also significant threats to Houston toad viability. Known predators of the Houston toad include water snakes (*Nerodia* sp.), bullfrogs (*Rana catesbeiana*), raccoons (*Procyon lotor*), and other carnivores; however, red imported fire ants (*Solenopsis invicta*) are believed to be the most detrimental to Houston toad viability, because they are known to prey on newly metamorphosed toadlets and compete with juvenile and adult Houston toads for their invertebrate food base. Stochastic events from either environmental factors or demographic factors are also heightened threats to the Houston toad because of its limited range and small population sizes. Small populations that are largely isolated from one another provide little, if any, opportunity for natural recolonization in the event of a local extirpation event. Historically, the species persisted in the face of extremely intense drought such as occurred in the 1950s; however, resilience to drought has likely decreased as a consequence of small and isolated populations. Within Texas, change models project up to 20 percent less precipitation, and most regions in Texas are predicted to become drier as temperatures increase.

Recovery Plan Goals

The objective of a recovery plan is to provide a framework for the recovery of a species so that protection under the ESA is no longer necessary. A recovery plan includes scientific information about the species and provides criteria and actions necessary for us to be able to reclassify the species to threatened status or remove it from the lists of endangered and threatened wildlife and plants. Recovery plans help guide our recovery efforts by describing actions we consider necessary for the species' conservation, and by estimating time and costs for implementing needed recovery measures.

Our recovery strategy for the Houston toad is to address the threats to the species and reduce them to a point such that the viability of the Houston toad can be maintained in the wild over time. We use the conservation principles of redundancy (i.e., the ability of a species to withstand catastrophic events; spreading risk among multiple populations to minimize the potential loss of the species from catastrophic events), representation (i.e., the ability of a species to adapt to changing environmental conditions over time, via the range of genetic and ecological variation found within the species), and resiliency (i.e., the ability of a population to withstand environmental and demographic stochasticity and disturbance) to better inform our view of what contributes to the Houston toad's viability and how best to conserve the species. The primary objectives of the recovery effort for the Houston toad involve acquiring, protecting, enhancing, restoring, and managing habitat within multiple recovery units, and implementing population restoration efforts such that multiple, resilient metapopulations with the appropriate genetic and ecological diversity are distributed throughout the species' range. We have identified six recovery units across the Houston toad's current range that are essential to the survival and recovery of the species. These recovery units encompass portions of all six Texas counties where the Houston toad is extant, and represent the areas most likely

to encapsulate at least one metapopulation. The revised recovery plan provides recovery criteria aimed at managing or eliminating threats to meet the goal of delisting the species. These recovery criteria are based on the conservation of undisturbed forested areas that are protected from future development, and the establishment of multiple Houston toad metapopulations composed of interconnected subpopulations. The site-specific management actions needed to address threats to Houston toad viability and achieve the recovery criteria involve: (1) Conserving, restoring, and protecting habitat; (2) captive propagation and supplementation; (3) establishing a monitoring program; (4) conducting research; (5) expanding monitoring into new areas; (6) conducting public education and outreach; (7) identifying effective habitat management strategies; and (8) effectively planning and coordinating recovery implementation.

Request for Public Comments

Section 4(f) of the ESA requires us to provide public notice and an opportunity for public review and comment during recovery plan development. It is also our policy to request peer review of recovery plans (July 1, 1994; 59 FR 34270). In an appendix to the approved recovery plan, we will summarize and respond to the issues raised by the public and peer reviewers. Substantive comments may or may not result in changes to the recovery plan; comments regarding recovery plan implementation will be forwarded as appropriate to Federal or other entities so that they can be taken into account during the course of implementing recovery actions. Responses to individual commenters will not be provided, but we will provide a summary of how we addressed substantive comments in an appendix to the approved recovery plan.

We invite written comments on the draft recovery plan. In particular, we are interested in additional information regarding the current threats to the species and the implementation of the recommended recovery actions.

Public Availability of Comments

All comments received, including names and addresses, will become part of the administrative record and will be available to the public. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available. If you submit a hardcopy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Authority

We developed our draft recovery plan and publish this notice under the authority of section 4(f) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Amy L. Lueders,
Regional Director, Southwest Region,
U.S. Fish and Wildlife Service.
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